1.0 PURPOSE AND SCOPE

(7.1.3)

This procedure describes the safety requirements, safe work practices, and operator roles and responsibilities for the inspection and operation of Powered Industrial Trucks (PIT).

This procedure applies to Washington River Protection Solutions LLC (WRPS) and their subcontractor organizations that operate and utilize PITs to perform material handling and storage activities for WRPS.

This procedure supplements but does not replace DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual."

Additional Controls for PIT operations in the tank farms are found in TFC-OPS-OPER-C-10.

This procedure is used in combination with the safety inspection, work control, and pre-job briefing processes, which are governed by their own procedures listed in Section 7.1.

2.0 IMPLEMENTATION

This procedure is effective on the date shown in the header.

3.0 RESPONSIBILITIES

(7.1.1, 7.1.2)

3.1 Safety Professionals

1. Assist line organizations in addressing issues related to implementation and compliance with this procedure.

2. Attend initial forklift operational safety training (course 044470 or equivalent) to assist in the performance of PIT operation oversight. No refresher training is required for Safety Professionals after completion of the initial training.

3.2 Management/Supervision

Ensure personnel involved with PIT operations comply with the provisions of this procedure and DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual."

3.3 Training Department

Assist Management and Buyer's Technical Representatives (BTRs) in determining acceptable training equivalencies as described in DOE-RL-92-36.

3.4 Field Work Supervisor

1. Ensure pre-use inspections are completed by operators before PIT operations begin. If a PIT is to be operated more than one shift in any given day, a pre-use inspection must be performed prior to use on each shift.

2. Understand the overall job plan in order to coordinate PIT operations with other work activities in a safe manner.

3. Ensure PIT operations are performed safely and within the scope of the current work as required.

4. Approve safety controls for PIT operations in accordance with Section 4.0.

5. Attend initial forklift operation safety training (course 044470 or equivalent) to assist in supervising and providing oversight of PIT pre-use inspections and operation. No refresher training is required for Field Work Supervisors (FWSs) after the initial training.

6. Ensure spotters are designated for safe conduct of operations whenever working conditions warrant.

3.5 PIT Operator

1. Operate the PIT in a safe, responsible manner.

2. Identify hazards and establish necessary controls for safe PIT operations. Obtains FWS concurrence for safety controls used.

3. Designate spotter(s) whenever determined necessary for safe conduct of operations.

   For example:

   - Operating the PIT in an area where the potential exists for multiple vehicle and/or pedestrian traffic
   - Operating near energized power lines (qualified electrical spotter required)
   - PIT operator vision is obstructed by load and/or other obstacles
   - Assistance is needed to properly position forks under irregular load
   - Assistance is needed to properly manipulate load on transport vehicle
   - Operating PIT on or near uneven surfaces.

4. Clearly communicate roles/expectations to spotter(s), and ensure their understanding prior to commencing operations.

5. Ensure continuous communication with spotter(s). If communication is lost, safely stop the operation until appropriate communications are re-established. If using two-way radios, hands-free type is preferred. Monitor radio for spotter communication and send message only when the PIT is stopped.

6. Perform a 360 degree walk around of the PIT:

   - Before starting the PIT at the beginning of each shift
   - Before starting the PIT after leaving it unattended.

7. Perform pre-use inspection of PIT before operating PIT. Evidence of a completed inspection will be available on the PIT or otherwise made readily available.

   As a minimum, evidence shall consist of a laminated or magnetic checklist filled out with grease pencil or dry erase marker, and must contain the current date, shift, and operator initials.

8. Be aware of other work activities in the vicinity of the PIT operations (e.g., pedestrian traffic, other vehicles and/or equipment, work activities by other subcontractors) and ensure proper safeguards are in place.

3.6 Spotter

NOTE: The spotter shall NOT be assigned additional duties or engage in any other activity while acting as a spotter. If while acting as spotter it becomes necessary to leave the work area or otherwise divert attention away from PIT operations, the PIT operator shall be notified and operations suspended. Operations may resume only after the spotter is again fully engaged

1. Wear a high visibility vest. The FWS has authority to waive this requirement based on local conditions, such as operating in a secure area where no other workers are present.

2. Ensure understanding of spotter responsibilities and expectations as established by the PIT operator. If a question arises, safely stop the operation until clarification is obtained.

3. Maintain continuous communication with the PIT operator during operations. This may be accomplished through visual contact, hand signals, direct voice communication, or use of two-way radios.

4. Keep the PIT operator informed regarding the status of other persons, equipment, or vehicular traffic within the PIT operating area, and assure a safe operating distance is maintained.

5. Execute a STOP signal when necessary to prevent the PIT from:

   a. Compromising safety of personnel working directly with the PIT operations or in the immediate area of the operations.

   b. Breaching distance limitations to power and communication lines.

   c. Coming into contact with buildings, structures, equipment, other vehicles, or established barriers.

4.0 PROCEDURE

See Figure 1 for general process flowchart.

4.1 Requirements
(7.1.1, 7.1.2, 7.1.3)

1. FWS and PIT Operator will evaluate the worksite and determine safe work controls.

   a. Perform a walkdown of the PIT operation area to assess potential hazards. For routine forklift evolutions, the FWS shall periodically observe operations to ensure the area remains safe and requirements are being met.

   b. Determine the best means to separate pedestrians and other vehicles in the surrounding work area.

   c. Depending on individual operation area conditions the following are examples of appropriate controls.

      - Barricading off the PIT operations area with cones/ropes/warning tape/chain and consider use of signage for large areas.
      - Conducting operations in a fenced area with the gates closed and signs indicating PIT operations in progress
      - Using a spotter to assist the PIT operator
      - Using a combination of spotter and barricades.

   d. Spotters are required when the operators view is obstructed, performing critical or special lifts, and when overhead electrical hazards are present.

2. When using spotters, the operator shall ensure the following requirements are complied with.

   NOTE: The operator and the spotter share responsibility to maintain communication and ensure safe handling of loads. Unless an unsafe situation could be created, it is expected that the operator comply with the signals of the spotter at all times.

   - Spotters and operators will review operations as well as communication requirements.
   - When working in a high noise environment, or as other conditions dictate such as tight operating area which impedes constant visual contact, the use of radio communication may be required.
   - Spotters shall wear a high visibility vest. For work performed at night all vests shall additionally possess reflective properties.
   - Spotters shall maintain a safe approach distance from the load whenever the load is being elevated/lowered or the PIT is in motion. Unless specified otherwise by

the Job Hazard Analysis (JHA), the minimum safe approach distance is normally equivalent to that of the total load height. For example, if the load was 4 feet high and was elevated 6 feet, the spotter's minimum safe approach distance from the load would be 10 feet (4 ft + 6 ft = 10 ft).

3. Prior to PIT travel on major Hanford Site roadways, a pre-job brief will be conducted. This brief should address methods for safe transit along the route, possible construction interference, high-speed traffic, and pedestrian areas. For travel on routine routes, the operator and FWS shall periodically perform spot checks of the route.

4. All traffic regulations shall be observed when the PIT is operated on site roadways.

5. PITs should be unloaded when transiting on site roadways. Minor exceptions may be approved by the FWS based on location (e.g., within a tank farm complex).

6. Although considered appropriate for roadway transit, mirrors are generally discouraged for material handling purposes. Manufacturer's written approval must be obtained before mirrors may be added to a PIT.

4.1.1 Attachments, Modifications, and Free Rigging from Tines

1. Attachments and modifications will follow the requirements of DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual"

2. Free rigging from forklift tines is not allowed to be used by WRPS or subcontractor personnel.

3. Forklifts will not be used for lifting personnel.

4.2 PIT Field Operations

PIT operators shall comply with the following guidelines:

4.2.1 Pre-Use Inspection
(7.1.2, 7.1.3)

Operator

1. Conduct pre-use inspection. This inspection is required once per shift. DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual contains typical pre-use inspection checklists developed from OSHA requirements. Individual work groups may provide their own checklist provided it meets the minimum requirements.

2. Ensure periodic maintenance inspections are current via inspection sticker or other documentation. Verbal confirmation from the equipment custodian also is acceptable.

4.2.2 Operating PIT Unloaded/Traveling
(7.1.1, 7.1.2, 7.1.3)

Operator

1. Operate the PIT in a manner to compensate for terrain (e.g., uneven surfaces, slope of ground), weather conditions (e.g., ice and snow), and traffic or pedestrian congestion.

NOTE 1: The operator and FWS should determine the best route to avoid heavily congested areas.

NOTE 2: Parking closer than 8 feet from the center of railroad tracks is prohibited.

2. When traveling:

   a. Observe all traffic regulations, including posted speed limits. A safe following distance (approximately three PIT lengths) shall be maintained.

   b. Yield the right of way to pedestrians or emergency vehicles; avoid heavy pedestrian traffic areas whenever possible.

   c. Cross railroad tracks diagonally whenever possible. Tilt fork tines slightly upward to avoid contact with tracks.

   d. Under all travel conditions, operate the PIT at a speed that will permit it to be brought to a stop in a safe manner. All starts and stops shall be easy and gradual to prevent loads from shifting.

4.2.3 Loading/Unloading/Operating the PIT

Operator

1. Perform loading, unloading, and operations in accordance with the DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual."

4.2.4 Parking the PIT

Operator

1. Park the PIT in a safe area without blocking exits, walkways, electrical panels, or fire lanes.

NOTE: A PIT is considered to be unattended when the operator is 25 feet or more away from the vehicle which remains in his/her view or whenever the operator leaves the vehicle and it is not in his/her view.

2. When a PIT is left unattended, fully lower the load engaging means, neutralize the controls, shut off the power, and set the brakes. Block the wheels if the truck is parked on an incline.

3. When the operator of an industrial truck is dismounted and within 25 feet of the truck still in his/her view, fully lower the load engaging means, neutralize the controls, and set the brakes to prevent movement.

5.0 DEFINITIONS

Powered Industrial Truck (PIT). A high-lift, self-loading truck, equipped with load carriage and forks for transporting and tiering loads. This consists of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustible engines.

Spotter. For the purpose of this procedure, Spotter is a designated person(s) whose sole responsibility is to assist the PIT operator in assuring personnel and equipment safety during PIT operations. Spotters are responsible for providing warning or stop signals prior to violation of proximity restrictions or pre-determined distance limitations regarding personnel, vehicles, equipment, structures, overhead obstructions, power and communication lines, ground penetrations or other potentially hazardous conditions.

6.0 RECORDS

There are no records generated specific to the performance of this procedure.

7.0 SOURCES

7.1 Requirements

1. 29 CFR 1910, "Occupational Safety and Health Standards," Subpart N, "Materials, Handling and Storage."

2. 29 CFR 1910.178, "Powered Industrial Trucks."

3. DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual."

7.2 References

1. TFC-OPS-MAINT-C-01, "Tank Operations Contractor Work Control."

2. TFC-OPS-MAINT-C-02, "Pre-Job Briefings and Post-Job Reviews."

3. TFC-OPS-OPER-C-10, "Vehicle and Dome Load Control in Tank Farm Facilities."

Figure 1. Powered Industrial Truck Operation.